

We claim:

- 1 1. A suction device for use with an electrophysiology device that
2 includes at least one operative element, a fluid lumen and a fluid outlet, the
3 suction device comprising:
4 at least one suction pod defining a suction region; and
5 a connector configured to removably secure the
6 electrophysiology device to the suction device such that the fluid outlet is
7 within the suction region.
- 1 2. A suction device as claimed in claim 1, wherein the at least one
2 suction pod comprises a plurality of suction pods defining respective suction
3 regions.
- 1 3. A suction device as claimed in claim 1, further comprising:
2 a suction line configured to be connected to a suction source;
3 and
4 at least one aperture that connects the suction line to the at
5 least one suction pod.
- 1 4. A suction device as claimed in claim 1, wherein the at least one
2 suction pod comprises a flexible suction pod.
- 1 5. A suction device as claimed in claim 1, wherein the connector
2 comprises a slot.
- 1 6. A suction device as claimed in claim 1, wherein the
2 electrophysiology device includes a plurality of fluid outlets, the at least one
3 suction pod comprises a plurality of suction pods defining respective suction
4 regions, and the connector is configured to removably secure the
5 electrophysiology device to the suction device such that each fluid outlet is
6 within a respective suction region.

1 7. A suction device for use with an electrophysiology device that
2 includes at least one operative element, the suction device comprising:
3 at least one suction pod defining a bottom surface; and
4 a connector configured to removably secure the
5 electrophysiology device to the suction device such that a portion of the
6 electrophysiology device extends below the bottom surface of the suction pod.

1 8. A suction device as claimed in claim 7, wherein the at least one
2 suction pod comprises a plurality of suction pods defining respective suction
3 regions.

1 9. A suction device as claimed in claim 7, further comprising:
2 a suction line configured to be connected to a suction source;
3 and
4 at least one aperture that connects the suction line to the at
5 least one suction pod.

1 10. A suction device as claimed in claim 7, wherein the at least one
2 suction pod comprises a flexible suction pod.

1 11. A suction device as claimed in claim 7, wherein the connector
2 comprises a slot.

1 12. A suction device as claimed in claim 7, wherein the connector is
2 configured to removably secure the electrophysiology device to the suction
3 device such that the portion of the electrophysiology device extends about 0.5
4 mm below the bottom surface of the suction pod.

1 13. A suction device for use with an electrophysiology device that
2 includes at least one operative element, the suction device comprising:
3 two longitudinally spaced suction pods; and
4 a connector configured to removably secure the
5 electrophysiology device to the suction device such that at least the
6 substantial majority of the operative element is between the suction pods.

1 14. A suction device as claimed in claim 13, further comprising:
2 a suction line configured to be connected to a suction source;
3 and
4 two apertures that respectively connect the suction line to the
5 two suction pods.

1 15. A suction device as claimed in claim 13, wherein the suction
2 pods comprise flexible suction pods.

1 16. A suction device as claimed in claim 13, wherein the connector
2 comprises a slot.

1 17. A suction device as claimed in claim 13, wherein the
2 electrophysiology device includes a plurality of longitudinally spaced operative
3 elements supported on a support body and the connector is configured to
4 removably secure the electrophysiology device to the suction device such that
5 respective portions of the support body between the longitudinally spaced
6 operative elements are aligned with the suction pods.

1 18. A system, comprising:
2 an electrophysiology device including a support structure, at
3 least one operative element carried on the support structure, a fluid lumen
4 and a fluid outlet; and
5 a suction device including at least one suction pod defining a
6 suction region and a connector that removably secures the electrophysiology
7 device to the suction device;
8 wherein the electrophysiology device and suction device are
9 respectively configured such that the fluid outlet is within the suction region
10 when the electrophysiology device is connected to the suction device.

1 19. A system as claimed in claim 18, wherein electrophysiology
2 device defines a distal end, the connector comprises a slot defining a distal
3 end, and the electrophysiology device and suction device are respectively

4 configured such that the fluid outlet is within the suction region when the distal
5 end of the electrophysiology device is adjacent to the distal end of the slot.

1 20. A system as claimed in claim 18, further comprising:
2 a suction source adapted to be operably connected to the
3 suction device.

1 21. A system as claimed in claim 18, wherein the at least one
2 suction pod comprises a plurality of suction pods defining respective suction
3 regions.

1 22. A system as claimed in claim 18, wherein the suction device
2 includes a suction line configured to be connected to a suction source and at
3 least one aperture that connects the suction line to the at least one suction
4 pod.

1 23. A system as claimed in claim 18, wherein the suction devices
2 comprises a flexible suction device.

1 24. A system as claimed in claim 18, wherein the electrophysiology
2 device includes a plurality of fluid outlets, the at least one suction pod
3 comprises a plurality of suction pods defining respective suction regions, and
4 the electrophysiology device and suction device are respectively configured
5 such that each fluid outlet is within a respective suction region when
6 the electrophysiology device is connected to the suction device.

1 25. A system as claimed in claim 18, wherein the at least one
2 operative element comprises a plurality of spaced electrodes.

1 26. A system, comprising:
2 an electrophysiology device including a support structure and at
3 least one operative element carried on the support structure; and

4 a suction device including at least one suction pod defining a
5 bottom surface and a connector that removably secures the electrophysiology
6 device to the suction device;

7 wherein the electrophysiology device and suction device are
8 respectively configured such that a portion of the electrophysiology device
9 extends below the bottom surface of the suction pod when the
10 electrophysiology device is connected to the suction device.

1 27. A system as claimed in claim 26, further comprising:

2 a suction source adapted to be operably connected to the
3 suction device.

1 28. A system as claimed in claim 26, wherein the electrophysiology
2 device and connector are configured such that the portion of the
3 electrophysiology device extends about 0.5 mm below the bottom surface of
4 the suction pod when the electrophysiology device is connected to the suction
5 device.

1 29. A system as claimed in claim 26, wherein the at least one
2 suction pod comprises a plurality of suction pods defining respective suction
3 regions.

1 30. A system as claimed in claim 26, wherein the suction device
2 includes a suction line configured to be connected to a suction source and at
3 least one aperture that connects the suction line to the at least one suction
4 pod.

1 31. A system as claimed in claim 26, wherein the suction devices
2 comprises a flexible suction device.

1 32. A system as claimed in claim 26, wherein the at least one
2 operative element comprises a plurality of spaced electrodes.

1 33. A system, comprising:

2 an electrophysiology device including a support structure and at
3 least one operative element carried on the support structure; and
4 a suction device including two longitudinally spaced suction
5 pods and a connector configured to removably secure the electrophysiology
6 device to the suction device;
7 wherein the electrophysiology device and suction device are
8 respectively configured such that at least the substantial majority of the
9 operative element is between the suction pods when the electrophysiology
10 device is connected to the suction device.

1 34. A system as claimed in claim 33, wherein the suction device
2 includes a suction line configured to be connected to a suction source and two
3 apertures that respectively connect the suction line to the two suction pods.

1 35. A system as claimed in claim 33, wherein the suction device
2 comprises a flexible suction device.

1 36. A system as claimed in claim 33, wherein the electrophysiology
2 device includes a plurality of longitudinally spaced operative elements
3 supported on a support body and the electrophysiology device and suction
4 device are respectively configured such that respective portions of the support
5 body between the longitudinally spaced operative elements are aligned with
6 the suction pods when the electrophysiology device is connected to the
7 suction device.

1 37. A system as claimed in claim 33, wherein the plurality of
2 longitudinally spaced operative elements comprises a plurality of longitudinally
3 spaced electrodes.

1 38. A system as claimed in claim 33, further comprising:
2 a suction source adapted to be operably connected to the
3 suction device.

1 39. A method of operating an electrophysiology device including a
2 support structure, at least one operative element carried on the support
3 structure, a fluid lumen and a fluid outlet, the method comprising the steps of:
4 securing a portion of the support structure to tissue with a
5 suction device;
6 supplying cooling fluid to the fluid lumen; and
7 drawing fluid from the fluid outlet into the suction device.

1 40. A method as claimed in claim 39, wherein the step of removably
2 securing the suction device to the electrophysiology device comprises
3 creating an interference fit between the suction device and the
4 electrophysiology device.

1 41. A method as claimed in claim 39, further comprising the step of:
2 performing at least one of a diagnostic and a therapeutic
3 procedure after the support structure is secured to tissue with the suction
4 device.

1 42. A method as claimed in claim 39, wherein
2 the electrophysiology device includes a plurality of fluid outlets;
3 and
4 the step of drawing fluid comprises drawing fluid from each of
5 the fluid outlets into the suction device.

1 43. A method as claimed in claim 39, further comprising the step of:
2 vaporizing the fluid.

1 44. A method as claimed in claim 39, further comprising the step of:
2 removing the fluid drawn into the suction device from a patient.